

# CLAIMS

We claim:

1. A method for screening for a bioactive agent capable of binding to a cell cycle protein R0101, said method comprising:

- 5 a) combining a cell cycle protein R0101 and a candidate bioactive agent; and  
b) determining the binding of said candidate bioactive agent to said cell cycle protein R0101.

2. A method for screening for a bioactive agent capable of interfering with the binding of a cell cycle protein R0101 and a PCNA protein, said method comprising:

- 10 a) combining a cell cycle protein R0101, a candidate bioactive agent and a PCNA protein; and  
b) determining the binding of said cell cycle protein R0101 and said PCNA protein.

3. A method according to Claim 2, wherein said cell cycle protein R0101 and said PCNA protein are combined first.

15 4. A method for screening for a bioactive agent capable of modulating the activity of cell cycle protein R0101, said method comprising:

- a) adding a candidate bioactive agent to a cell comprising a recombinant nucleic acid encoding a cell cycle protein R0101; and  
b) determining the effect of said candidate bioactive agent on said cell.

20 5. A method according to Claim 4, wherein a library of candidate bioactive agents is added to a plurality of cells comprising a recombinant nucleic acid encoding a cell cycle protein R0101.

6. An antibody to a cell cycle protein R0101.

7. The antibody of Claim 6 wherein said antibody is a monoclonal antibody.

8. The antibody of Claim 6 wherein said antibody reduces or eliminates the biological function of said cell cycle protein R0101.

9. A method of diagnosing cancer in an individual, said method comprising determining the level of expression of R0101 in a sample taken from an individual and comparing said level to a control which has a level which indicates there is no cancer, wherein an increase in said sample compared to said control indicates a diagnoses of cancer.